REMARKS

Claims 17-41 are currently pending in this application. Claims 17-31 were previously withdrawn. The status of the application in light of the Office Action mailed June 15, 2005, is as follows:

(A) Claims 32-41 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,884,983 ("Morrison").

(B) Claims 32-41 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,689,556 ("Cedrone").

(C) Claims 32-41 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,970,460 ("Jensen").

A. Response to Section 102 Rejection Based on Morrison

Claim 32 was rejected under 35 U.S.C. § 102(b) as being anticipated by Morrison. As described below, the rejection of claim 32 should be withdrawn because Morrison does not disclose or suggest all of the features of this claim.

(1) Claim 32 is Directed to a Testing Device That Includes At Least One Pin Receptacle to be Operatively Couplable to At Least One of the Second Contacts and to Receive Pins of an Electrical Socket Device

Claim 32 is directed toward a method of making a testing device that includes coupling a load board to a base member. The method can further include removably coupling multiple electrically conductive first contacts to the base member. The first contacts can have first portions that are thereby operatively coupled to the load board and second portions that are operatively couplable to multiple second contacts. The method can still further include operatively coupling the second contacts to the second portions of the first contacts. The method can yet further include configuring at least one pin receptacle to be operatively couplable to at least one of the second contacts and to receive pins of an electrical socket device.

(2) Morrison Discloses a Resolderable Electric Connector Using Flexible Circuit Sheets and Conductive Surface Traces

Morrison discloses a resolderable electrical connector for joining a circuit board 14 to a mother board 18A (col. 2, lines 49-53). The connector has a male connector half 36 joined to a circuit board 14 and a female connector half 38 mounted on a mother board 18A (col. 4, lines 47-54). A heating element assembly 44 is mounted to the female connector half 38, and includes a heating bar 46 inside a ceramic body 48 (col. 4, lines 47-57). A pair of flexible circuit sheets 52a and 52b are mounted to the female connector half 38 and include conductive surface traces 56a and 56b (col. 4, lines 47-65). The conductive traces 56a and 56b of the flexible circuit sheets 52a and 52b are permanently joined by solder or brazing material to conductive surfaces 58a and 58b on the motherboard 18a and to surface traces 50a and 50b on the heater assembly 44 (col. 4 lines 58-65; col. 5, lines 28-45).

The male connector half 36 includes a pair of flexible spring-like circuit sheets 64a and 64b that have surface traces 68a and 68b that are permanently brazed or soldered to surface traces 72a and 72b of the circuit board 14 (col. 4, lines 47-50; col. 5, lines 4-15 and 28-45; Figure 4). The surface traces 68a and 68b of the circuit sheets 64a and 64b are also soldered to the surface traces 50a and 50b on the heating assembly 44 using a low temperature solder (col. 5, lines 4-15). The heating assembly 44 can heat the low temperature solder connecting the surface traces 68a and 68b of the circuit sheets 64a and 64b and the surface traces 50a and 50b on the heating assembly 44, allowing the female and male connecting halves 38, 36 to be separated and rejoined, without affecting any of the other permanent soldered or brazed connections (col. 5, lines 28-45).

(3) Morrison Fails to Disclose, Among Other Features, Removably Coupling First Contacts to a Base Member, and Configuring a Pin Receptacle to be Couplable to a Second Contact and to Receive Pins of an Electrical Socket Device

Morrison fails to teach or suggest the combination of elements set forth in claim 32. For example, Morrison does not teach removably coupling multiple electrically conductive first contacts to a base member. Even if the mother board 18A, heating

element assembly 44, and flexible circuit sheets 52a and 52b did correspond to the load board, base member, and first contacts as suggested by the Examiner, the flexible circuit sheets 52a and 52b are permanently attached to both the mother board 18A and the heating element assembly 44. If the flexible circuit sheets 52a and 52b were removably attached to the mother board and heating element assembly, the physical and electrical integrity of the female connector half 38 and mother board would be compromised destroying the functionality of the resolderable Electric Connector. Accordingly, Morrison does not teach or suggest removably coupling multiple electrically conductive first contacts to a base member as recited in claims 32.

Additionally, Morrison fails to teach or suggest configuring a pin receptacle to be coupled to a second contact and to receive pins of an electrical socket device. In the above referenced Office Action, the Examiner suggests that the flexible circuit sheets 64a and 64b, which are permanently brazed or soldered to surface traces 72a and 72b of the circuit board 14, correspond to the pin receptacle and the pins of an electrical socket recited in claim 32, respectively. The undersigned respectfully disagrees. The circuit board 14 in Morrison is not an electrical socket device with pins and the flexible circuit sheets in Morrison are not pin receptacles configured to receive the pins of an electrical socket device. Additionally, the undersigned found nothing in the cited portion of Morrison referring to an electrical socket device or to a pin receptacle for receiving pins of an electrical socket device. Accordingly, Morrison fails to teach or suggest, *inter alia*, configuring a pin receptacle to be coupled to a second contact and to receive pins of an electrical socket device.

Furthermore, there is no motivation to modify the resolderable electrical connector in Morrison with a receptacle configured to receive the pins of an electrical socket device. A purpose of the connector in Morrison is to create a soldered joint between a circuit board and a mother board. There would be no purpose for adding an additional component, such as a socket device, to the apparatus taught by Morrison, especially if the additional component required additional power and heat to create a resolderable joint or did not provide a resolderable joint. Accordingly, there is no

motivation to modify the resolderable electrical connector in Morrison with a receptacle configured to receive the pins of an electrical socket device.

For at least these reasons claim 32 is patentable over Morrison. Claims 33-36 depend from claim 32 and, for at least this reason claims 33-36 are also patentable over Morrison. Claim 37 contains features generally similar to those of claim 32, and for at least this reason claim 37 is also patentable over Morrison. Additionally, claim 37 recites that the electric socket device is configured to receive a device to be tested. As discussed above, the undersigned found no reference to an electrical socket device in the cited reference, let alone an electrical socket device configured to receive a device to be tested. Accordingly, for at least this additional reason, claim 37 is patentable over Morrison. Claims 38-41 depend from claim 37, and for at least this reason, they too are patentable over Morrison.

(4) Claims 33 and 38 are Patentable Over Morrison for At Least the Additional Reason That They Include Removably Coupling the First Contacts to the Base Member Via At Least One Clamp

Morrison does not inherently teach or suggest removably coupling the first contacts to the base member via at least one clamp, as recited in claims 33 and 38. In Morrison, the flexible circuit sheets 52a and 52b, which the Examiner characterized as first contacts, are permanently joined by solder or brazing material to the motherboard 18a and to the heater assembly 44 (col. 4 lines 58-65; col. 5, lines 28-45). The flexible circuit sheets are neither removably coupled to a base member nor coupled to a base member via a clamp. Accordingly, Morrison does not inherently teach or suggest removably coupling the first contacts to the base member via at least one clamp. Therefore, for at least this additional reason, claims 33 and 38 are in condition for allowance.

(5) Claims 34 and 39 are Patentable Over Morrison for At Least the Additional Reason That They Include Frictional Engaging the Second Contacts With the Second Portions of the First Contacts

Morrison does not inherently teach or suggest frictional engaging the second contacts with the second portions of the first contacts, as recited in claims 34 and 39. In Morrison, the flexible circuit sheets 52a and 52b, which the Examiner characterized as first contacts, are permanently joined by solder or brazing material to the motherboard 18a and to the surface traces 50a and 50b on the heater assembly 44, which the Examiner characterized as the second contacts. It is not inherent that two items soldered together are, or ever were, frictionally engaged. Accordingly, Morrison does not inherently teach or suggest frictional engaging the second contacts with the second portions of the first contacts. Therefore, for at least this additional reason, claims 34 and 39 are in condition for allowance.

(6) Claims 35 and 40 are Patentable Over Morrison for At Least the Additional Reason That They Include operatively coupling the at least one pin receptacle to the at least one of the second contacts

Morrison does not inherently teach or suggest operatively coupling the at least one pin receptacle to the at least one of the second contacts, as recited in claims 35 and 40. As discussed above, the circuit board 14 in Morrison is not an electrical socket device with pins and the flexible circuit sheets in Morrison are not pin receptacles configured to receive the pins of an electrical socket device. Additionally, the undersigned found nothing in the cited portion of Morrison referring to an electrical socket device or to a pin receptacle for receiving pins of an electrical socket device. Accordingly, Morrison does not inherently teach or suggest operatively coupling the at least one pin receptacle to the at least one of the second contacts. Therefore, for at least this additional reason, claims 35 and 40 are in condition for allowance.

(7) Claims 36 and 41 are Patentable Over Morrison for At Least the Additional Reason That They Include Coupling the Pins of the Electrical Socket Device to the At Least One Pin Receptacle

Morrison does not inherently teach or suggest coupling the pins of the electrical socket device to the at least one pin receptacle, as recited in claims 36 and 41. As discussed above, the circuit board 14 in Morrison is not an electrical socket device with pins and the flexible circuit sheets in Morrison are not pin receptacles configured to receive the pins of an electrical socket device. Additionally, the undersigned found nothing in the cited portion of Morrison referring to an electrical socket device or to a pin receptacle for receiving pins of an electrical socket device. Accordingly, Morrison does not inherently teach or suggest coupling the pins of the electrical socket device to the at least one pin receptacle. Therefore, for at least this additional reason, claims 36 and 41 are in condition for allowance.

B. Response to Section 102 Rejection Based on Cedrone

Claim 32 was rejected under 35 U.S.C. § 102(b) as being anticipated by Cedrone. As described below, the rejection of claim 32 should be withdrawn because Cedrone does not disclose or suggest all of the features of this claim.

(1) Cedrone Discloses a Contact Assembly for Testing a Device with Integrated Circuits Where the Connection Member Directly Contacts the Pins of the Integrated Circuits of the Device Being Tested

Cedrone discloses a contactor assembly 12 for testing a device 26 having integrated circuit with pins 24 (abstract, col. 6, lines 40-46; col. 8, lines 3-17). The contactor assembly includes a base 14 with contacts 16 and a grounding plane 18 that has a pair of conductive plates 18a, 18b (col. 6, lines 36-54). The upper ends 22 of the contacts 16 are angled toward and contact the pins 24 of the device 26 to be tested (col. 6, lines 40-46; col. 8, lines 10-16). The upper end of the grounding plates 18a, 18b are configured to hold a chip capacitor or resistor 42 and a connection member 44 that contacts a pin 24 of the device 26 being tested (col. 8, lines 3-16). The contacts 16 and the grounding plates 18a, 18b are separated by insulation and clamped to the base 14 with screws 31 (col. 6, lines 55-67; Figure 1).

The lower end of each contact 16 terminates in a v-shaped foot that contacts the signal pads 36 of the contactor board 34 (col. 6, lines 46-47; col. 7, lines 51-58). The grounding plates 18a, 18b terminate in a plurality of v-shaped feet which contact a ground plane region 38 of the contact board 34 (col. 6, lines 46-49; col. 7, lines 6-21; Figures 2 and 5). The contact assembly 12 is joined to the contact board 34 using screws (col. 7, lines 51-54).

(2) Cedrone Fails to Disclose, Among Other Features, Configuring a Pin Receptacle to Receive Pins of an Electrical Socket Device

Cedrone fails to disclose or suggest the combination of elements set forth in claim 32. For example, although the connection member 44 is configured to contact a pin, the connection member 44 directly contacts a pin 24 of the integrated circuits of the device 26 being tested, and is not configured to receive pins of an electrical socket device. In fact, the undersigned found no reference to any socket device, with or without pins, in Cedrone. Additionally, even if the Cedrone connection member 44 did correspond to a pin receptacle and the Cedrone contacts 16 did correspond to the second contacts, as suggested by the Examiner, the connection member 44 is coupled to a grounding plane 18 and is not operatively coupled to the contacts 16. Accordingly, Cedrone fails to teach or suggest, *inter alia*, configuring a pin receptacle to receive pins of an electrical socket device.

Furthermore, there is no motivation to modify the assembly in Cedrone with a receptacle configured to receive the pins of an electronic socket device, because the assembly is designed specifically to contact two rows of contacts running along the side of a device and adding a socket device would serve no purpose. Additionally, a purpose of Cedrone is to provide an improved impedance contactor assembly for testing electronic devices (col. 4, lines 20-23). Adding a socket device between the component being tested would necessitate that the socket's affect on impedance be considering, complicating the process of controlling/improving impedance. Accordingly, there is no motivation to modify the assembly in Cedrone with a receptacle configured to receive the pins of an electronic socket device

For at least these reasons claim 32, and claims 33-36 which depend from claim 32, are patentable over Cedrone. Claim 37 contains features generally similar to those of claim 32, and for at least this reason claim 37 is also patentable over Cedrone. Additionally, claim 37 recites that the electric socket device is configured to receive a device to be tested. As discussed above, the undersigned found no reference to an electrical socket device in the cited reference, let alone an electrical socket device configured to receive a device to be tested. In fact, the contact assembly in Cedrone is configured so that the contacts 16 directly contact the pins of the integrated circuits of the device being tested, confirming that Cedrone does not teach or suggest a socket device configured to receive a device to be tested. Accordingly, for at least this additional reason, claim 37 is patentable over Cedrone. Claims 38-41 depend from claim 37, and for at least this reason, they too are patentable over Cedrone.

C. Response to Section 102 Rejection Based on Jensen

Claim 32 was rejected under 35 U.S.C. § 102(b) as being anticipated by Jensen. As described below, the rejection of claim 32 should be withdrawn because Jensen does not disclose or suggest all of the features of this claim.

(1) Jensen Discloses a Controlled Impedance Testsite Where the Spring Contactors Directly Contact Pins of an Integrated Circuit Chip Being Tested

Jensen discloses a controlled impedance testsite that has an extender 12 and cables 18-24 that extend about the sides of the extender from a lower connector board 92 to an upper connector board 94 (abstract; col. 4, lines 55-61). The lower connector board 92 is secured to the extender via screws 106a and 106b, and includes a plurality of pins 93a-93n (col. 4, lines 62-66; col. 5, lines 12-17). The cables 18-24 are coupled to the upper connection board 94 and electrical signal pads 126a-126n that also connect to spring contactors 98a-98n (Figure 5; col. 6, lines-21). The spring contactors 98a-98n directly contact the integrated circuit chip pins 91a-91n of an integrated circuit chip 89 positioned in the testsite 10 for testing (Figure 2; col. 4, lines 29-52; col. 5, lines 28-41). A jumper pin 124 can interconnect wire sets or pairs on the top surface contacts of the upper connector board 94a. An ejector 14 is located below the chip 89

when the chip is in the testsite 10 and can be used to eject the chip from the testsite 10 after testing is completed (col. 4, lines 38-54; Figure 2).

(2) Jensen Fails to Disclose, Among Other Features, Configuring a Pin Receptacle to Receive Pins of an Electrical Socket Device

Jensen fails to disclose or suggest the combination of elements set forth in claim 32. For example, the ejector 14 in Jensen is a device to eject a chip 89 form the testsite 10 after testing is complete and is not an electrical socket with pins as characterized by the Examiner. In fact, the undersigned found no reference to an electrical socket with pins or a receptacle for receiving such pins in Jensen.

Additionally, the undersigned disagrees with the characterization that the jumper pin 124 of Jensen are the second contacts recited in claim 32 and that the integrated circuit chip pins 91a-91n are the pin receptacles. The integrated circuit chip pins 91a-91n are pins of an integrated circuit chip 89, not pin receptacles. Additionally, the jumper pin 124 in Jensen is used to interconnect wire sets or pairs on the top surface contacts of the upper connector board 94a and cannot be characterized as a pin of an electronic socket device. Accordingly, Jensen fails to teach or suggest, among other features, configuring a pin receptacle to receive pins of an electrical socket device.

Additionally, there is no motivation to modify the controlled impedance testsite of Jensen with a receptacle configured to receive the pins of an electronic socket device. A purpose of Jensen is to provide a controlled impedance testsite (col. 2, lines 20-24). Adding a socket device between the component being tested and the rest of the assembly would require consideration of the socket's affect on impedance and would further complicate the process of controlling impedance. Accordingly, there is no motivation to modify the controlled impedance testsite of Jensen with a receptacle configured to receive the pins of an electronic socket device.

For at least these reasons claim 32, and claims 33-36 which depend from claim 32, are patentable over Jensen. Claim 37 contains features generally similar to those of claim 32, and for at least this reason claim 37 is also patentable over Jensen.

Additionally, claim 37 recites that the electric socket device is configured to receive a device to be tested. As discussed above, the undersigned found no reference to an electrical socket device in the cited reference, let alone an electrical socket device configured to receive a device to be tested. In fact, the contact assembly in Jensen is configured so that the spring contactors 98a-98n directly contact the integrated circuit chip pins 91a-91n of an integrated circuit chip 89 positioned in the testsite 10, confirming that Jensen does not teach or suggest a socket device configured to receive a device to be tested. Accordingly, for at least this additional reason, claim 37 is patentable over Jensen. Claims 38-41 depend from claim 37, and for at least this reason, they too are patentable over Jensen.

D. The Claims of the Present Application are Also Patentable Over the Combination of Morrison, Cedrone, and Jensen

Additionally, even if there were motivation to combine the teachings of Morrison, Cedrone, and Jensen, the combined references would still not teach or suggest all of the features of independent claims 32 or 37. For example, as shown above, the combination of references do not teach or suggests configuring at least one pin receptacle to be operatively couplable to at least one of the second contacts and to receive pins of an electrical socket device, as recited in claim 32. Additionally, the combination of references also fails to teach or suggest configuring at least one pin receptacle to be operatively couplable to at least one of the second contacts and to receive pins of an electrical socket device, the electrical socket device being configured to receive a device to be tested, as recited by claim 37. Furthermore, there would be no motivation to combine the resolderable electrical connector of Morrison with the contactor assembly for testing a device of Cedrone or the controlled impedance testsite of Jensen because these devices have not need of a resolderable electrical connector. Accordingly, claims 32-41 of the present application are patentable over the combination of Morrison, Cedrone, and Jensen.

In view of the foregoing, the pending claims comply with 35 U.S.C. § 112 and are patentable over the applied art. The applicant accordingly requests reconsideration of the application and a Notice of Allowance. If the Examiner has any questions or

believes a telephone conference would expedite prosecution of this application, the Examiner is encouraged to call the undersigned at (206) 359-6477.

No fees are believed due with this communication. However, the Commissioner is hereby authorized and requested to charge any deficiency in fees herein to Deposit Account No. 50-0665.

Respectfully submitted,
Perkins Coie LLP

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Tim R. Seeley
Registration No. 53,575

Correspondence Address:
Customer No. 25096
Perkins Coie LLP
P.O. Box 1247
Seattle, Washington 98111-1247
(206) 359-8000